HOWI 8000-U003 REV. B August 17, 1999

Responsible Office: UL/Life Sciences Division

Subject: Research Solicitation, Evaluation, and Selection



OFFICE WORK INSTRUCTION

RESEARCH SOLICITATION, EVALUATION, AND SELECTION

Original Approved and Signed by:

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DOCUMENT HISTORY LOG

Status (Baseline/ Revision/ Canceled)	Document Revision	Effective Date	Description
Baseline		02/01/99	
Revision	A	4/30/99	Incorporates changes made in response to comments from the Code U review and the DNV Pre-Assessment Report.
Revision	В	8/17/99	Incorporates changes to eliminate letter version designations and corrects titles on reference documents. Incorporates clarifications on quality records and corrects page connector symbols on process maps.

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1. Purpose

This OWI provides instructions for the planning and implementation of the research solicitation and selection process utilized at NASA Headquarters (HQ) Code U for the Life Sciences Division and Microgravity Research Division. This process ensures quality support and selection of independently peer reviewed science and technology research.

2. Scope and Applicability

This OWI applies to all research solicitation processed for the Life Sciences Division and the Microgravity Research Division within the Office of Life and Microgravity Sciences and Applications (OLMSA). All commercial research flight planning is addressed in HOWI 8000 U008.

3. **Definitions**

- 3.1 <u>CBD Announcement.</u> A Federal Register announcement of an upcoming NASA Research Announcement (NRA), published by the Commerce Department in the document called the Commerce Business Daily (CBD).
- 3.2 <u>Conduct Peer Review</u>. The process that the NRA peer review contractor organizes. The peer review contractor solicits participation of a panel of scientific and/or technical experts to review proposals submitted in response to NRAs, organizes their travel, takes notes on panel meetings, maintains proposal evaluation worksheets, makes copies of peer review analysis, and incorporates input into an overall scientific and technological merit evaluation document. A mail review refers to a review conducted exclusively by ad hoc mail reviewers and does not involve a panel meeting. Mail reviews are sometimes used for unsolicited proposals that are not deferred to future NRAs. Unsolicited proposals may also be reviewed internally by Division staff if the Division Director deems this action appropriate. All recommendations for review of unsolicited proposals are put forward by the Enterprise Scientist for decision by the Division Director.
- 3.3 DD. A NASA Division Director.

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- 3.4 <u>Engineering Cost Management (ECM) Review.</u> An engineering evaluation performed by a NASA Field Center when a proposal related to flight is being considered for selection. If the proposal involves human subject research or flight aboard the Space Shuttle or Space Station, the review includes an evaluation of safety issues.
- 3.5 <u>Human Exploration and Development of Space Enterprise Strategic Plan.</u> A document developed under the direction and authority of the Associate Administrators of the OLMSA and the Office of Space Flight (OSF) detailing the goals and objectives of the Human Exploration and Development of Space (HEDS) Enterprise.
- 3.6 <u>Lead Center (LC)</u>. The Lead Centers for Life and Microgravity Sciences and Applications are: Ames Research Center (Gravitational Biology and Ecology), Johnson Space Center (Advanced Human Support Technology and Biomedical Research and Countermeasures) and Marshall Space Flight Center (Microgravity Research).
- 3.7 <u>NASA Strategic Plan</u>. A document defining the goals and objectives of NASA, under the authority of the Administrator.
- 3.8 NASA Research Announcement (NRA). NASA uses NRAs to solicit proposals from the scientific community to perform research. In addition to describing research opportunities, an NRA provides prospective proposers with information on the proposal evaluation and selection process. It also includes instructions for proposal preparation and responding to NRAs. The NRA specifies which Division Director is the selecting official for the respective NRA.
- 3.9 Office of Life and Microgravity Sciences and Applications Policy on Review, Selection, and Support of Research. A document which defines the policy governing the mechanisms by which the NASA OLMSA solicits and selects research. The Associate Administrator of OLMSA issued this document to OLMSA staff in September of 1998.
- 3.10 PI. Principal Investigator.
- 3.11 <u>Process Proposals</u>. The process that the NRA peer review contractor performs. The proposals are received electronically or by mail. The peer review contractor categorizes the proposals according to research discipline, and sends an acknowledgment to the proposers. The peer review contractor then makes and sends copies of the proposals to appropriate members of the independent peer review panel. The contractor also files an office copy of each proposal. For unsolicited proposals, the Enterprise Scientist assesses the urgency, and either defers it to the next NRA cycle or initiates an in-house or mail peer review.

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- 3.12 <u>Proposals.</u> Documents submitted by researchers to NASA requesting support for science and technology research.
- 3.13 <u>Science in Air and Space: NASA's Science Policy Guide.</u> Guiding document from NASA's Chief Scientist on Science Policy including research solicitation issued in 1996.
- 3.14 <u>Unsolicited Proposals.</u> Documents submitted by researchers to NASA for support of research without reference to a specific NRA.
- 3.15 <u>WWW.</u> The World Wide Web, i.e., the Internet.

4. Reference Documents

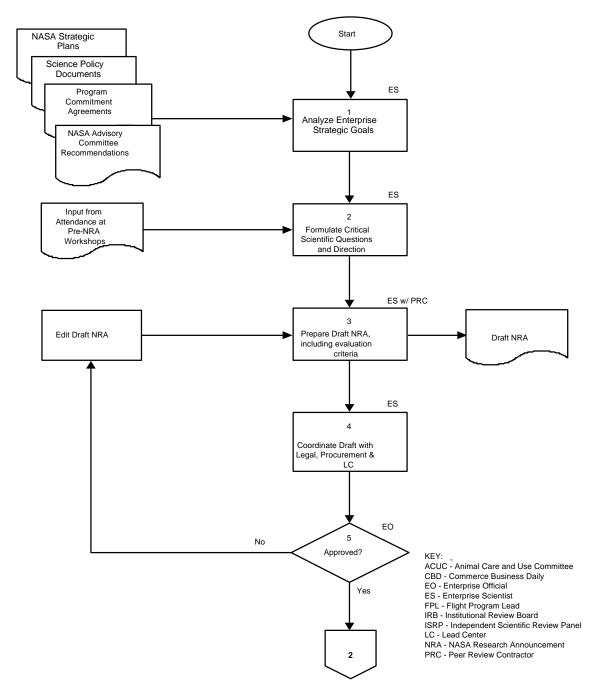
- 4.1 NPD 1000.1, NASA Strategic Plan
- 4.2 NPG 5800.1, Grant and Cooperative Agreement Handbook.
- 4.3 Office of Life and Microgravity Sciences and Applications Policy on Review, Selection and Support of Research, September 1998
- 4.4 Science in Air and Space: NASA's Science Policy Guide, 1996 (http://dlt.gsfc.nasa.gov/cordova/guide.html)
- 4.5 Program Commitment Agreements (PCAs) for OLMSA Programs (Current Version)
- 4.6 Scientific and Administrative Support of the NRA/Peer Review Process for OLMSA, NASW-5000
- 4.7 Review of NASA Research Announcements (NRAs) and Announcements of Opportunity (OLMSA policy memorandum, dated May 1999)

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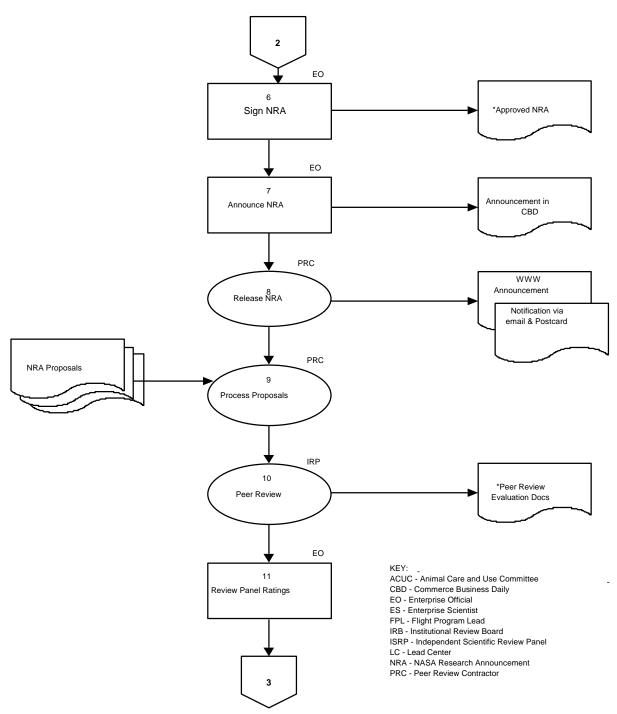
5. Flowchart For Solicited Proposals



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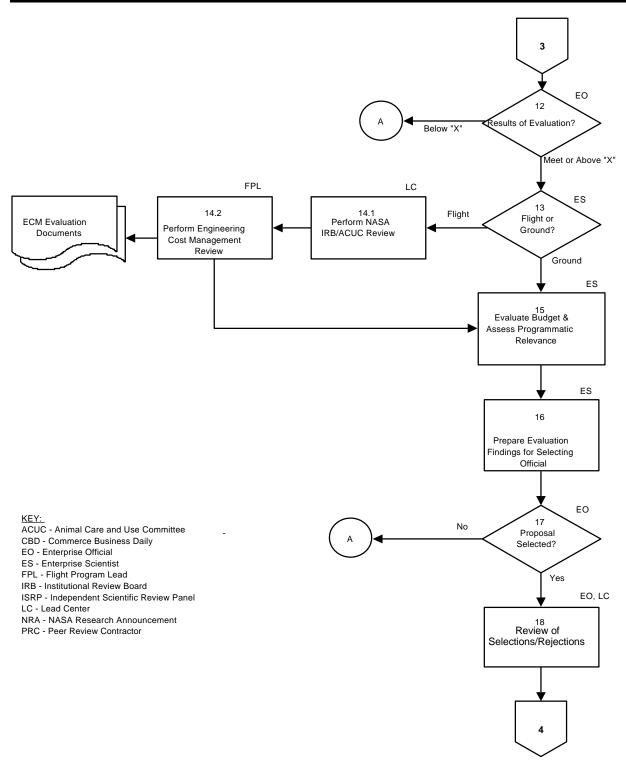
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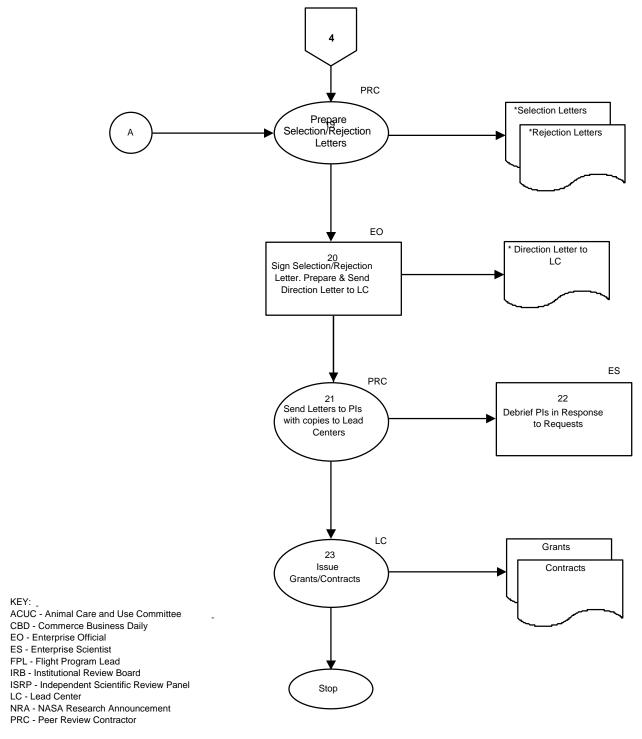
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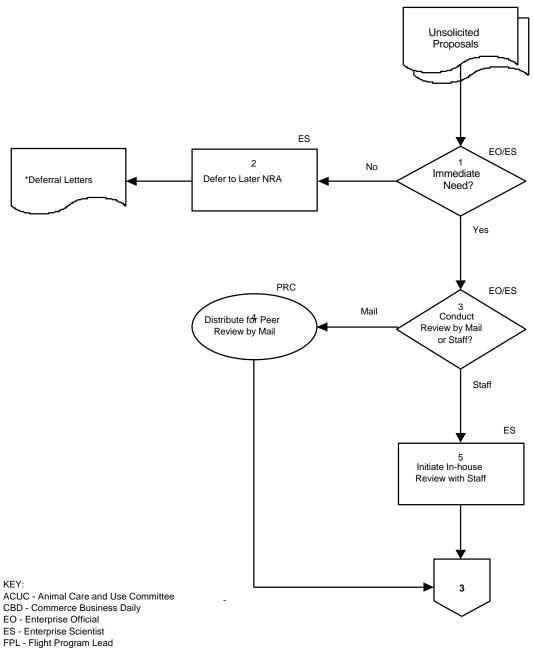


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Flowchart for Unsolicited Proposals



IRB - Institutional Review Board

ISRP - Independent Scientific Review Panel

LC - Lead Center

NRA - NASA Research Announcement

PRC - Peer Review Contractor

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6. Procedure

The process described in the following table consists of three phases: research solicitation, research evaluation, and research selection. The number at the left of the table refers to the flowchart step in Section 5.

Research Solicitation

#	Responsible Party	Activity Description		
1	Enterprise Scientist	Analyze enterprise strategic goals by reviewing NASA Strategic Plans, current OLMSA Program Commitment Agreements, Science Policy Documents and recommendations from NASA's Advisory Committees and subcommittees. These documents provide points of reference and guidance.		
2	Enterprise Scientist	Using input from the scientific community during pre-NRA workshops, formulate the discipline science focus, direction, and critical questions or critical issues requiring NASA/OLMSA support to meet Human Exploration and Development of Space goals.		
3	Enterprise Scientist with Peer Review Contractor	Prepare draft NRA, including evaluation criteria, based on the formulation of science focus.		
4	Enterprise Scientist	Send draft copies of the NRA to the responsible Division Director, the procurement office and to legal affairs for clearance. Coordinate with Lead Center, as appropriate. After obtaining these clearances, present the NRA to the Associate Administrator for Life and Microgravity Sciences and Applications (AA) for approval and signature.		
5	Enterprise Official (AA)	Is the NRA approved? If not, the NRA is returned to Step 3 for rework. If approved, go to Step 6.		
6	Enterprise Official (AA)	The AA signs the NRA.		
7	Enterprise Official (DD)/Enterprise Scientist	Submit a notice in the Commerce Business Daily that NASA will release an NRA in 15 days.		
8	Peer Review Contractor	Place NRA on the WWW. Distribute notification of NRA posting via email and postcards to the NASA OLMSA mailing list.		

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Research Evaluation

#	Responsible Party	Activity Description
9	Peer Review Contractor	Process proposals that are received by making copies for the Independent Scientific Review and Engineering Cost Management (ECM) Review Panels, filing copies for future review by NASA officials, and mailing proposal copies to all reviewers.
10	Independent Review Panel	The peer review contractor organizes the Independent Review Panel. To ensure quality control of the process, an OLMSA Enterprise Employee oversees the Independent Review Panel.
11	Enterprise Official (DD)/Enterprise Scientist	Reviews the panel's evaluations and ratings for quality and consistency. Selects the level of performance in the review and evaluation that is required for consideration of proposals to be funded.
12	Enterprise Official (DD)/Enterprise Scientist	What are the results of the Independent Review Panel's evaluation? Proposals below the required evaluation level are categorized as rejections and are forwarded to Step 19 for notification of rejection.
13	Enterprise Scientist	If the proposing researcher identifies the proposal as a flight proposal on his submission form, the Enterprise Scientist forwards the proposal and supporting materials to the Flight Program Lead.
14.1	Lead Center	If the research involves human or animal research subjects, present to NASA Institutional Review Board or Animal Care and Use Committee for review.
14.2	Flight Program Lead	Performs an Engineering Cost Management (ECM) Review. Informs the Enterprise Scientist of the results of the ECM. The Flight Program Leads are located at NASA Field Centers.
15	Enterprise Scientist	Analyze the budget impact of those proposals being considered for support by OLMSA with respect to NRA goals and objectives. Analyze the programmatic relevance of proposals being considered for support by OLMSA with respect to NRA goals and objectives.

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Research Selection

#	Responsible Party	Activity Description	
16	Enterprise Scientist	Prepare evaluation findings for Enterprise Selecting Official based on resource requirements and NASA strategic goals and objectives.	
		If the evaluation findings concern establishment of a Commercial Space Center, go to step 11 in Section 5 of HOWI 7500 U005 for further processing.	
17	Enterprise Official (DD)	Proposals are selected or rejected based on NRA goals and objectives, scientific merit, budget evaluation, programmatic relevance, and for flight proposals, ECM evaluation. The selection process is described in the respective NRA. Proposals that are not selected are forwarded to Step 19 for notification of rejection.	
18	Enterprise Official (AA), Lead Center	Reviews all selections and rejections of proposals for Human Exploration and Development of Space.	
19	Peer Review Contractor	Prepares selection and rejection letters for all proposals.	
20	Enterprise Official (DD)	Signs selection or rejection letters and letter to Lead Center (LC) with summary of selections requesting that the LC initiate procurement activities.	
21	Peer Review Contractor	Sends selection or rejection letter to Principal Investigator (PI), with copies to the NASA Grants Office and the Lead Center.	
22	Enterprise Official	Debrief researchers in response to requests.	
23	Lead Center	Issues grant or contract.	

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6.2 There is a different procedure for processing the small number of unsolicited research proposals that are submitted to NASA without reference to a specific NRA, as shown in the following table. The procedure used to evaluate these unsolicited proposals is different than that used for unsolicited proposals. The number at the left of the table refers to the flowchart step in Section 5.

#	Responsible Party	Activity Description		
1	Enterprise Official (DD)/Enterprise Scientist	When unsolicited proposals are received, it is determined whether there is an immediate need for the research being proposed.		
2	Enterprise Scientist	If there is not an immediate need for the proposed research, then the proposal is returned to the proposer who may re-submit the proposal in response to a later NRA.		
3	Enterprise Official (DD)/Enterprise Scientist	If there is an immediate need for the proposed research, then a decision is made whether to conduct a review of the proposal by mailing the proposal to a peer review panel or to conduct an in-house staff review.		
4	Peer Review Contractor	If this review is conducted through the mail, then the Peer Review Contractor organizes distribution of the proposals and evaluation material. The results of the peer review conducted by mail are returned to the process at Step 12 of Section 6.1 for review of the results.		
5	Enterprise Scientist	After an in-house review is conducted, the evaluations are returned to the process at Step 12 of Section 6.1 for review of the results.		

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7. Quality Records

Record Identification	Owner	Location	Media Electronic/ Hard Copy	Schedule & Item Nos.*	Retention/ Disposition
Approved NRA	Enterprise Official (DD)	NASA Web Site http://peer1.idi .usra.edu/peer _review/nra/nr a.html	Electronic	Schedule 7, Item 8	Transfer all files to the responsible division/project 2 years after award. Records will be incorporated into the official project file, or grant/contract file.
Peer Review Evaluation Documents (for proposals resulting in projects)	Enterprise Official (DD)	Peer Review Contractor Facility	Hard Copy	Schedule 7, Item 9.A.1	File documentation with the related grant or contract file; destroy accordingly
Peer Review Evaluation Documents (for proposals not selected)	Enterprise Official (DD)	Peer Review Contractor Facility	Hard Copy	Schedule 7, Item 9.A.2	Retire to FRC when 1 year old. Destroy when 5 years old.
Copies of Proposal Selection Letters	Enterprise Official (DD)	Peer Review Contractor Facility	Hard Copy	Schedule 5, Item 37.A	Retire to FRC 2 years after completion of grant. Destroy when 6 years, 3 months old
Copies of Proposal Rejection Letters	Enterprise Official (DD)	Peer Review Contractor Facility	Hard Copy	Schedule 5, Item 37.A.1	Destroy 3 years after rejection or withdrawal
Copy of Direction Letter to Lead Center	Enterprise Official (DD)	Peer Review Contractor Facility	Hard Copy	Schedule 5, Item 37.A	Retire to FRC 2 years after completion of grant. Destroy when 6 years, 3 months old
Copies of Proposal Deferral Letters	Enterprise Official (DD)	Peer Review Contractor Facility	Hard Copy	Schedule 5, Item 37.A.1	Destroy 3 years after rejection or withdrawal

^{*} Quality Records are retained in accordance with the referenced schedule and item number from NPG 1441.1, NASA Records Retention Schedules